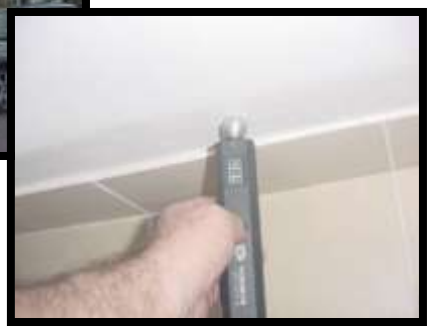
JOB REF: XXXX

SPECIFIC DEFECTS REPORT

Relating to Dampness

XXX Hackney, London. E5 XXX



Miss X

Prepared by:
XXX
INDEPENDENT CHARTERED SURVEYORS

Marketing by:
www.1stAssociated.co.uk
XXX

CONTENTS

INTRODUCTION AND INSTRUCTION

We have been instructed by Miss X to prepare an independent report on the XXXX Hackney, London. E5 XXX

We have carried out a visual inspection of the property on XXXX

The weather was dry and sunny at the time of the inspection.

We are Independent Chartered Building Surveyors. We are registered with the Royal Institution of Chartered Surveyors and are members of the Independent Surveyors Association,

Qualifications: XXXX BSc MSc FBEng MRICS, MCIOB
Chartered Building Surveyor

The work has been carried out as per our standard Terms and Conditions of Contract which have been emailed to you as part of the confirmation of our instructions. If you would like further clarification please do not hesitate to contact us.

SYNOPSIS

Miss X purchased the property approximately a year ago has been increasingly concerned about the dampness coming into the property. We would term the dampness as being the affect and we have investigated more broadly to establish the cause of the problem.

EXTERNAL PHOTOGRAPHS

Front view

Rear view

Light well

INTERNAL PHOTOGRAPHS

Lower Ground Floor (Basement)

Front Bedroom

Rear Bedroom

Bathroom

EXECUTIVE SUMMARY

Executive summaries are not ideal as they try and encapsulate relatively complex problems in a few precise and succinct words. Having said that here is our Executive Summary and recommendations:

We have carried out a building survey of the property as a whole specifically focusing on the dampness as shown to us in:-

Lower ground floor (basement)
i. Front bedroom
ii. Rear bedroom
iii. Bathroom

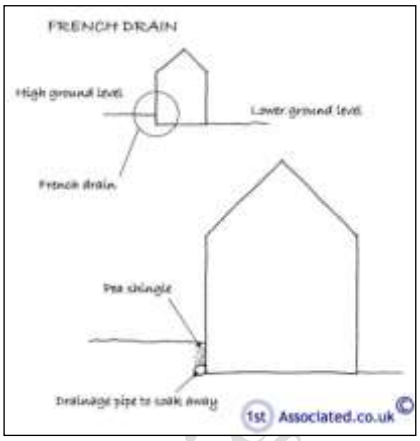
On inspecting the property this leads us to believe that there is either no waterproof membrane (known as tanking) or there is a failed waterproof membrane to the lower ground floor (basement area) which is allowing damp into the property.

1) Dampness

We have tested for dampness using an electronic damp meter manufactured by Gann and a Protimeter. We have obtained higher than expected damp meter readings to the solid part of the walls but were unable to take meter readings to the dry lined part of the walls (false walls).

Gann damp meter

In our opinion there are three methods of suitably making a below ground level area habitable which are:-



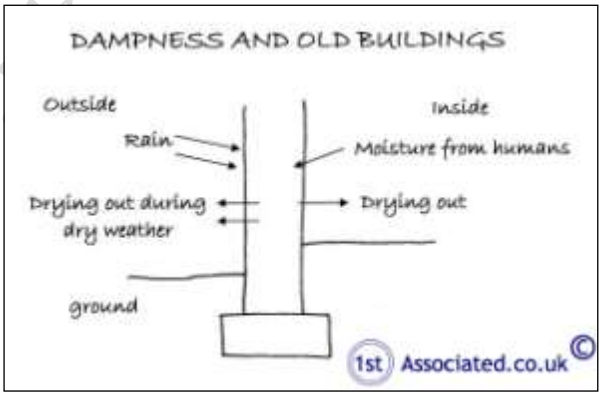
French drain

i. Adding a French drain and external tanking.

ii. Internal tanking with a bitumen

iii. A proprietary sheet drainage system. This type of system relies on the waterproofing being 100% waterproof as it drains away the water. However it does need to incorporate a drain and means of taking the water away. (Drain cavity protection Type C – refer to Appendices).

Building Regulations require new habitable rooms have a low level of dampness. We believe the habitable rooms that we have seen are above the dampness levels that we typically see.



Dampness and old buildings

2) <u>A mixture of old and new construction techniques</u>

We would comment more generally that the property has a mixture of old and new building materials and techniques. This shows a general lack of understanding of older properties. For example the exterior of the property has been re-pointed in a cement mortar which effectively smoothers this type of construction and does not allow the building to breathe or dissipate dampness.

We have explained this in greater detail in the main part of the report and recommend remedial work is carried out on the property.

The sooner the remedial work is carried out the better to minimise future costs.

INSPECTION

Our inspection has been specifically related to the dampness issues detailed below:

Visual Inspection

Our inspection has taken the format of a visual inspection:

1. External of the property of the
   i. front
   ii. rear
   iii. right hand side

   We have had the benefit of a x 16 lens on a digital camera

2. Internal of the property

   We have viewed:

   Lower Ground Floor (Basement)

   i. front bedroom
   ii. rear bedroom
   iii. bathroom

   Ground Floor

   iv. front reception room
   v. rear reception room
   vi. kitchen
   vii. WC

3. Roof space, viewed from ground level only as unable to access.

4. Surrounding areas

   i. front area
   ii. rear area

5. Owner occupier

6. We have had the benefit of talking to the neighbours to the left hand side as you face the property but not the neighbour above or the right hand side.

7. We have utilised a resistance meter for measuring dampness a Gann Meter

8. References - 1stAssociated.co.uk – see articles on Resolving Dampness in your basement and Basement Conversions – do they add value? Please see the Appendices at the end of this report.

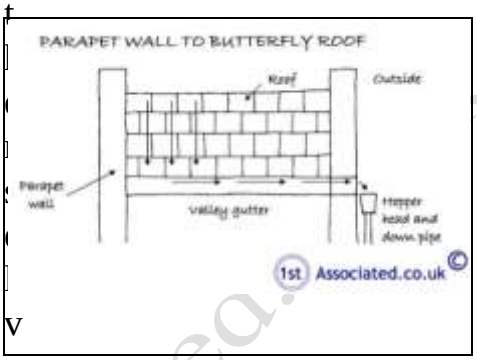
SURVEY FINDINGS

1.0.0. From our visual external inspection we noted:

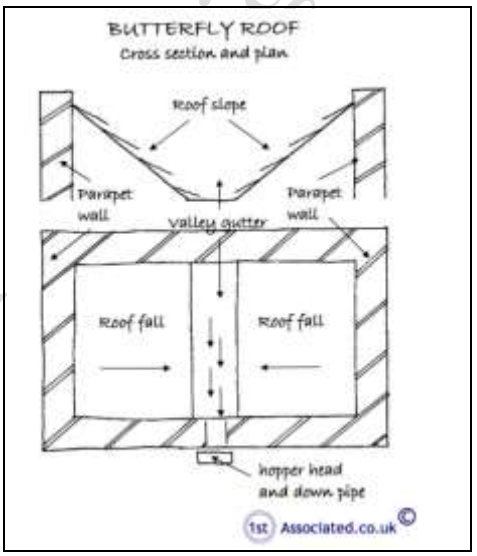
Front

1.1.0. Roof

We suspect that this property has a butterfly roof these are renowned for problems to the central valley gutter and also to the parapet walls t



Parapet wall and butterfly roof



Butterfly roof

v

e

s

.

1.2.0. Chimneys

We were not able to see the main chimneys to the front of the property but were able to see the chimneys to the rear which look to be in need of repair. This will affect the upstairs apartment before you.

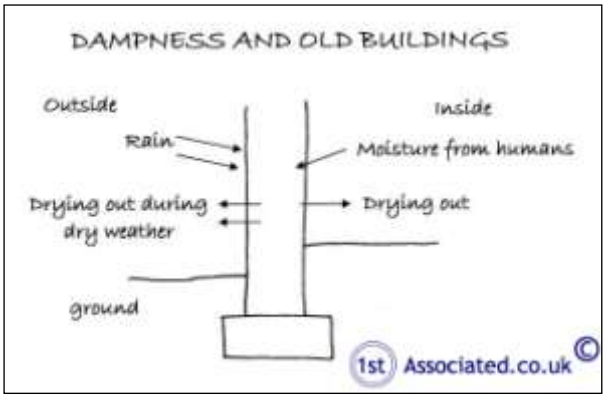
Our main concern with chimneys is to ensure that no chimney breasts have been removed and those that have been removed are to Building Regulations.

Rear chimney viewed from ground level, (the only chimney we could see).

Future roof problems, we could see vegetation growing above the side of the parapet walls

1.3.0. Walls

1.3.1. It was noted that the brick wall has been re-pointed in a modern cement mortar, this effectively smoothes the breathing effect that should be occurring with the walls.



Dampness and old buildings

We do come across cement re-pointing in a lot of buildings that we view. However it is becoming far less common problem and we would add that the Local Authority do not permit/ recommend this type of re-pointing on old buildings particularly those that are Listed or in a Conservation Area.

Modern cement re-pointing to wall

1.4.0. Light well

Light well

There is a light well which has been formed to the front of the property giving light to the basement. It also means that rainwater can gather in this area.

As far as we could see there is not an efficient way for rainwater to be removed from this area and it can sit there which in turn will cause dampness within the property, in this case the front bedroom.

As an aside we would also comment that we cannot see any weep holes (which we feel is reasonably normal good building practice) in the walls that form the sides of the light well which therefore means that pressure will build up.

1.5.0. Windows

As far as we could see the original timber windows have been replaced with plastic windows. There are no trickle vents on the plastic windows, which are a requirement now under the Building Regulations,

although it is not a retrospective requirement we would consider it good building practice.

Trickle Vents Defined

Small vents to the windows to allow air movement inside the property to stop a build up of fumes or humidity.

Rear

1.6.0. Please refer to our comments in the front elevation.

Bulge in the rear brickwork

A noticeable bulge was seen in the rear brickwork indicating that this property has had structural movement.

ACTION REQUIRED:

Information should be obtained from the builder as to how they have resolved the structural movement.

Bulge in brickwork to the rear

Right Hand Side

1.7.0 Please refer to our comments in the front elevation.

2. From our visual internal inspection we noted

Lower Ground Floor / Basement

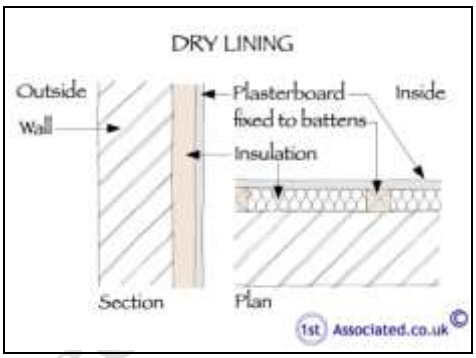
Front Bedroom

2.0.0. Ceilings – plasterboard

Plasterboard Defined

The usual name for Gypsum plasterboard which is building board with a core of aerated gypsum, usually enclosed between two sheets of heavy paper, used as a dry lining.

2.1.0. Walls – dry lined (false walls) and wet plastered



Dry lining

2.2.0. Floors – solid underfoot assumed concrete, covered with a carpet and therefore we could not gain any further access

Rear Bedroom

2.3.0. Ceilings – plasterboard

2.4.0. Walls – dry lined (false walls) and wet plastered

Dampness coming through

We have taken damp meter readings with an electronic resistance meter manufactured by Gann and obtained readings up to 20 at the skirting point where we would expect readings to read 15 in this age, type and style of property. This indicates that dampness is coming through the wall as would be expected if it has not been suitably waterproofed.

Damp reading at skirting

2.5.0. Floors – solid underfoot assumed concrete, covered with a carpet and therefore we could not gain any further access

Dampness coming through

We have taken damp meter readings with an electronic resistance meter manufactured by Gann and obtained readings in the 70s and 80s at the skirting point where we would expect readings to read 30-60 in this age, type and style of property. This indicates that dampness is coming through the wall as would be expected if it has not been suitably waterproofed.

Bathroom

2.6.0. Ceilings – plasterboard

2.7.0. Walls – dry lined (false walls) and wet plastered

2.8.0. Floors – solid underfoot assumed concrete, covered with a tile and therefore we could not gain any further access

Dampness coming through

We have taken damp meter readings with an electronic resistance meter manufactured by Gann and obtained higher readings for this age, type and style of property and we also noted paint starting to flake in this area at low level. This indicates that dampness is coming through the wall as would be expected if it has not been suitably waterproofed. Additionally there could be a condensation problem in this area as there is a lack of adequate ventilation.

Ground Floor

Front Reception Room

2.9.0. Ceilings – plasterboard

2.10.0. Walls – dry lined (false walls) and wet plastered

2.11.0. Floors – joist and floorboards, covered with a carpet and therefore we could not gain any further access

Rear Reception Room

2.12.0. Ceilings – plasterboard

2.13.0. Walls – dry lined (false walls) and wet plastered

2.14.0. Floors – joist and floorboards, covered with a carpet and therefore we could not gain any further access

Kitchen

2.15.0. Ceilings – plasterboard

2.16.0. Walls – dry lined (false walls) and wet plastered

2.17.0. Floors – joist and floorboards, covered with a tile and therefore we could not gain any further access.

Tiles in kitchen laid without expansion joints, a hard tile surface onto a moving timber surface

3. Movement in general can be seen to the properties in the terrace of houses in XXX

Tie-bars in end property of the row of houses showing that there has been problems with movement in the property generally

Cracking to next door neighbour's bay window (Right hand side neighbour), all directions as you face the property

Cracking to the end gable of the end property

4. We had the benefit of talking to your left hand neighbour (all directions given as you face the property) who advised that there seems to have been problems when carrying out the work as the rear gable was re-built twice.

5. Damp Guarantee – we would comment on the damp guarantees that we have seen did not relate to work carried out in the lower ground floor (basement).

Note; we have not moved furniture or fixtures and fittings.

Note; the full areas inspected are identified within the inspection part of the report and this should show anything in this section

SUMMARY UPON REFLECTION

The Summary Upon Reflection is a second summary so to speak, which is carried out when we are doing the second or third draft a few days after the initial survey when we have had time to reflect upon our thoughts on the property. We would add the following in this instance:

We would reiterate our earlier comments that we feel the builder had a very basic of understanding of how to repair/renovate an older property and has made some fundamental mistakes. Whilst we come across a range of these errors reasonably frequently it is rare that we come across this combination of errors in one property.

If you would like any further advice on any of the issues discussed or indeed any that have not been discussed! Please do not hesitate to contact us on

LIMITATIONS

Specific Defects Report

1. Conditions of Engagement

Please note: references to the masculine include, where appropriate, the feminine.

Subject to express agreement to the contrary (which in this particular case has been none) and any agreed amendments/additions (of which in this particular case there have been none), the terms on which the Surveyor will undertake the Specific Defects Report are set out below.

Based upon a visual inspection as defined below the Surveyor will advise the Client by means of a written report as to his opinion of the visible condition and state of repair of the specific problem or problems only. In this instance we have been asked to investigate the damp problems.

2. The Inspection

a) Accessibility and Voids

The Surveyor will base this report on a visual inspection and accordingly its scope is limited. It does not include an inspection of those areas, which are covered, unexposed or inaccessible. Our visual inspection will relate to the specific defects shown to us only.

b) Floors

We have not opened up the floor structure. We have only carried out a visual inspection and any conclusions will be based upon our best assumptions. We can open up the floor if so required at an extra fee.

c) Roofs

The Surveyor has not been inside the roof.

d) Boundaries, Grounds and Outbuildings

The inspection will not include boundaries, grounds and outbuildings unless specifically stated (none stated).

e) Services

No services inspected.

f) Areas not inspected

The Surveyor will have only inspected those areas identified within the report. His report will be based upon possible or probable defects based upon what he has seen together with his knowledge of that type of structure. If you feel that any further areas need inspection then please advise us immediately.

g) Specific Defects Report

As this is a report upon a Specific Defect we do not offer any comment or guidance upon reactive maintenance and/or planned or routine maintenance items.

h) Whilst we have used reasonable skill and care in preparing this report, it should be appreciated that the Chartered Surveyors cannot offer any guarantee that the property will be free from future defects or that existing defects will not suffer from further deterioration;

3. Deleterious and Hazardous materials

a) Unless otherwise expressly stated in the Report, the Surveyor will assume that no deleterious or hazardous materials or techniques have been used in the construction of the property. However the Surveyor will advise in the report if in his view there is a likelihood that high alumina

cement (HAC) concrete has been used in the construction and that in such cases specific enquiries should be made or tests carried out by a specialist.

4. Contamination

The Surveyor will not comment upon the existence of contamination as this can only be established by appropriate specialists. Where, from his local knowledge or the inspection he considers that contamination might be a problem he should advise as to the importance of obtaining a report from an appropriate specialist.

5. Consents, Approvals and Searches

a) The Surveyor will assume that the property is not subject to any unusual or especially onerous restrictions or covenants which apply to the structure or affect the reasonable enjoyment of the property.

b) The Surveyor will assume that all bye-laws, Building Regulations and other consents required have been obtained. In the case of new buildings and alterations and extensions, which require statutory consents or approval the Surveyor will not verify whether, such consents have been obtained. Any enquiries should be made by the Client or his legal advisers.

Drawings and specifications will not be inspected by the Surveyor. It is the Clients responsibility to forward any drawings and specifications that he has or knows the whereabouts of to us to include information in our report. If these are not forthcoming we will make our best assumptions based upon the information available.

c) The Surveyor will assume that the property is unaffected by any matters which would be revealed by a Local Search and replies to the usual enquiries or by a Statutory Notice and that neither the property nor its condition its use or intended use is or will be unlawful.

6. Fees and Expenses

The Client will pay the Surveyor the agreed fee for the Report and any expressly agreed disbursements in addition.

7. Restrictions on Disclosures

a) This report is for the sole use of the Client in connection with the property and is limited to the current brief. No responsibility is accepted by the Chartered Surveyors if used outside these terms.

b) Should any disputes arise they will be dealt with and settled under English law;

c) This report does not fall under the Third Parties Rights Act.

8. Safe Working Practices

The Surveyor will follow the guidance given in Surveying Safely issued by the Royal Institution of Chartered Surveyors (RICS).

APPENDIX 1

CONSTRUCTION SUMMARY

External

Chimneys:	One brick built chimney
Main Roof:	Pitched and clad in slate
Gutters and Downpipes:	Plastic
Soil and Vent Pipe:	Plastic
Walls:	Flemish Bond brickwork with pointing in a cement mortar (assumed)
Perimeter walls:	Mixture of solid walls and dry lining (false walls)
External Joinery:	Double glazed plastic windows
Foundations:	Not inspected

Internal

Ceilings:		Plasterboard, there may be some original lath and plaster remaining (assumed)
Walls		Predominately solid (assumed)
Floors:	Basement Floor:	Concrete (assumed)
	Ground Floor:	Suspended timber with a concrete floor to the rear (assumed)

We have used the term 'assumed' as we have not opened up the structure.

Time Line – A brief history of the structure

This has been based upon a discussion with Miss X

DATE	DESCRIPTION
XXX	Property refurbished and put up for sale and was first seen by Miss X
XXX	Purchased by Miss X
XXX	Problems first started to be noticed

Dates and progress to be added by Miss X

TIMBER TREATMENT

Guarantee

Treatment

Resolving Dampness in Your Basement

The most common dampness found within a basement is penetrating dampness. Methods have improved over the years and we can now look at waterproofing as opposed to damp proofing.

British Standard 8102

British Standard 8102 is the British Standard relating to basements. There are different grades in relation to basements, for example:

Grade One is for a garage

Grade Two is for a working area, i.e. a plant room

Grade Three is a residential grade

Grade Four is basically Grade Three with relative humidity control

There are various options for damp proofing your basement:

Type A – Tanked Protection

Type B – Integral Waterproofing

Type C – Drained Cavity Protection

We will now consider the three options in turn:

Tanked Protection Type A

This is where a waterproof membrane is added to keep water out, for example within a Victorian property basement.

Integral Waterproofing Type B

This is where waterproof concrete is used, for example when building a bridge that needs to sit in water.

Drained Cavity Protection Type C

This is a dry wall system with a drain behind it and is said to be the best type.

This is an Overview of what each System Requires

Tanked Protection Type A

This involves adding a lining to the area, usually internally (as this is easier / cheaper) but sometimes externally. This can, if not carried out properly, add bending stresses which cause cracking to the tanking and as such a Structural Survey should be carried out to establish the construction and its attributes and whether it is capable of coping with the change in pressures as walls, which are normally brickwork and are strong in compression but not in tension.

We would add that this can move the damp problem around rather than resolve it. Although this does not form part of the presentation we thought we would add it to give a balanced view.

Tanked protection can be carried out by a general builder rather than a specialist builder; this can equally be an advantage or a disadvantage. It does mean that if you are having other building work carried out it can be incorporated into the work programme. If the tanking is used on the outside of the wall, whilst difficult to carry out due to the digging down the side of the property that is required, it does put the protection in the right place.

Integral Waterproofing Type B

This tends to be used on commercial applications and requires specialist design and knowledge.

Drained Cavity Protection Type C

The main key benefits are that it doesn't affect how the structure works, i.e. no added pressures; it is relatively easy to retrofit; and it resists vibration, unlike the tank. It has been used for 10 – 15 years, so now we have historic evidence on how it works.

Drained Cavity Protection Installation Process

- The sump is formed
- Membranes added to the wall
- Drainage channels are added
- The close cellular insulation is added
- The water proofing membrane (with a shallow or deep stud depending upon the configuration of the area)
- The floor system
- The finished wall
- The pump is added into the sump

This article is based on a presentation by Dr Peter Fitzsimons as well as various other sources.

The presentation was given to the Independent Surveyors and Valuers Association (ISVA)

Basement Conversions
Do They Add Value?

Can I Carry Out A Basement Conversion?

Some considerations when carrying out a basement conversion are: Is the existing basement damp? Does it have suitable head height? Whilst alterations and movements can be made, for example, to give you enough head height by lowering the ground level, as you can imagine it is painstaking, labour intensive and therefore often an expensive job.

Does It Require Planning Permission For A Basement Conversion?

Typically, no permissions are required from the Local Authority. However, do check if the property is Listed or in a Conservation Area or whether structural work, such as moving walls, is required, as this will then require either Planning Permission and/or Building Regulations (we would always recommend that you check with the Local Authority just to see if there are any improvements needed and you also may get some very useful information from them with regards to the local area and the water table level).

What Does A Basement Conversion Involve?

Normally the usual options are either to tank the cellar, which is the traditional method, or to dry line the walls. For either option you really require builders that are used to this type of work, or to be very experienced at D.I.Y.

What Do The Builders Do?

There are commonly two systems in use; one known as tanking and the other known as the dry lined drainage system.

Tanking

This is where the basement is lined to stop water getting in. Ideally it should be lined on the inside but this is difficult where it is an existing basement and often it is lined on the inside. It should include the floor area. This can unfortunately lead to a build up of pressures and cause damage and deterioration if not carried out properly.

Dry Lined Drainage System

This is where the basement is drained of any dampness within it behind false walls into a sump pump, which is a pump located at a lower level within the floor of the cellar.

A Basement Conversion – Your Design Choices

There are few choices with a basement conversion, such as:

- Light - do you wish to add windows to give natural light into the basement?

- Ventilation – do you wish to add a mechanical ventilation system, or even a real air conditioning system (this is one where the heating, the cooling and the relative humidity is controlled by air ventilation, but these are expensive. The term air conditioning is used when air handling is occurring).

- Sump pumps – there is a range of sump pumps available, including those with alarms in case the sump pump doesn't cope or fails for some reason and also there are those with back up sump pumps.

Brief Specification of the Works Carried Out for a Basement Conversion by the Builders

Tanking System :-

- Removal of all items within the basement.
- Preparation of basement
- Adding a sump pump (if so required)
- Possibly replacing the floor if it is not considered suitable.
- Applying first coat to the wall
- Applying second and third coats to the wall
- Tanking the floor area
- Adding appropriate falls onto any water that does get into the basement towards the sump pump.

Dry Lining Drainage System :-

- Clearing of cellar
- Checking of floor timbers and protecting as required
- Preparation of walls
- Adding a drainage channel
- Adding sump pump
- Applying fixing plugs
- Applying plastic sheeting to walls
- Adding dry lining
- Adding a fall to the floor to stop any water.

Getting On With Your Builder

It is very important to build a good relationship with the builder carrying out the basement conversion. We feel fundamental to this is a detailed agreed quotation for the work, together with discussions on any possible extra items that may come to light. Agreement on when payments will be made, for example within two weeks of the work being completed, possibly an official contract, although some smaller builders tend to be put off by this. Set and agree the site rules, i.e. what time work can begin and whether you are happy for the builder to work at the weekend and provide lots of cups of tea and bacon sandwiches, assuming your builder is not a vegetarian!

We would add that the role of project managing the building work is often under estimated and certainly there is a builder inside of you that is trying to get out! Where there are many trades it does require much co-ordination and cajoling from the builder to co-ordinate everyone. It is also important that if things are going wrong you deal with them in a logical and rational manner and if things go extremely wrong and you get into a dispute situation where the builder, for example, walks off site.

We would be more than happy to help; please contact XXXX for help and advice with regard to basement conversions.